

REMARKS

**A. Status of the Application**

The Office Action dated December 8, 2004 has been received and its contents carefully noted. Claims 1 and 3-23 are pending in the application. Claims 11, 12, 20, 21 and 23 are allowed. Claims 1, 3-10, 13-19 and 22 have been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Albers et al. ("Albers") (U.S. Patent No. 5,153,532).

**B. The Drawings**

The Examiner has objected to Fig. 2 as not including a "Prior Art" label. Accordingly, in amended FIG. 2, a label stating "Prior Art" has been added.

**C. The Amendments To The Independent Claims**

Claims 1, 3-10, 13-19 and 22 have been finally rejected under § 103(b) over the Admitted Prior Art in view of Albers. In this Amendment, claims 7 and 8 have been cancelled, and independent claims 1, 16 and 22 have been amended. More specifically, the subject matter of cancelled claim 7 relating to the output of the physical noise sources being non-deterministic has been added to independent claims 1 and 16. It is respectfully submitted that the cancellation of dependent claim 7, and the addition of the subject matter of claim 7 to the amended independent claims 1 and 16 does not

raise new issues and does not require a new search. Accordingly, the Examiner is respectfully requested to enter the amendments to independent claims 1 and 16.

**D. Amended Independent Claim 1 and 16 Are Patentable Over the Cited References**

It is respectfully submitted that amended independent claims 1 and 16 are patentable over the combination of the Admitted Prior Art (AAPA) in view of Albers. Amended independent claims 1 and 16 include the cancelled subject matter of claim 7 relating to the output of the physical noise sources being non-deterministic. It is respectfully submitted that neither Albers nor the Admitted Prior Art (AAPA) teach this claimed feature, and that it would not be obvious to one of ordinary skill in the art to modify the AAPA to include this feature.

The Examiner's prior art rejections are set out in parts 1 and 3 of the Office Action. With regard to independent claims 1 and 16, the Office Action suggests that Albers teaches the use of physical noise sources. Indeed, the Office Action refers to the blocks 250 and 270 in Figure 2 of Albers as "physical noise sources". The Applicant respectfully disagrees. A physical noise source generates a truly unpredictable output, e.g. using thermal noise activity. The blocks in Albers are explicitly said to be psuedo-random bit sequence generators which therefore generate predictable (albeit lengthy) bit sequences. Accordingly, Applicant has amended claims 1 and 16 to include the features of claim 7 which require the physical noise source to

produce a non-deterministic output, and it is respectfully submitted that the amendments to claims 1 and 16 distinguish the claims from the prior art.

In the second paragraph of part 1 of the Office Action, the Examiner addresses the question as to whether the prior art could be combined in such a way as to use both a deterministic signal and a non-deterministic signal. However, at no point does the Office Action address the question as to whether a skilled person would be motivated to make such a combination. Mixing deterministic and non-deterministic signals, and the advantages accruing therefrom as set out in the previously-filed response, are nowhere suggested in the prior art, and the Applicant respectfully submits that the skilled person would not be motivated to make such a combination.

It is respectfully submitted, therefore, that independent claims 1 and 16 are patentable over the cited prior art.

#### **E. The Rejection Of Independent Claims 3 And 22**

The Applicant respectfully traverses the Examiner's rejection of claims 3 and 22 (see the section bridging pages 5 and 6 of the Office Action). The Examiner appears to take the position that the prior art suggests an arrangement in which first and second PNS's are coupled to first and second level detectors. This is not what is claimed in claims 3 and 22. Claims 3 and 22 are directed to obtaining two "preliminary" signals by level detecting a [single] random amplitude analog signal at respective different levels. This feature, which substantially increases the rate at which uncorrelated events can be

obtained from a source signal, is not addressed in the Office Action. Accordingly, the Applicant respectfully submits that claims 3 and 22 are patentable over the cited prior art.

**F. Dependent claims 4-6, 9, 10, 13-15 and 17-19**

The Applicant believes that dependent claims 4-6, 9, 10, 13-15 and 17-19 are allowable over the prior art for at least the same reasons as the independent claims from which they depend.

**G. Conclusion**

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and such allowance is respectfully solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Richard J. McGrath (Reg. No. 29,195), to conduct an interview in an effort to expedite prosecution in connection with the present application.


If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH &, BIRCH, LLP

By: 

Michael K. Mutter  
Reg. No. 29,680

  
MKM/RJM/kmr  
(703) 205-8000  
1906-0123P

P.O. Box 747  
Falls Church, VA 22040-0747  
703-205-8000

AMENDMENTS TO THE DRAWINGS

The attached drawing sheet includes changes to FIG. 2. In FIG. 2, a label of "Prior Art" has been added.

**Attachments: Annotated and Replacement sheets**



Application No. 09/633,275  
Filed with Amendment dated

# ANNOTATED SHEET

## Prior Art

"Prior Art"  
label added



FIG. 1

**Prior Art**

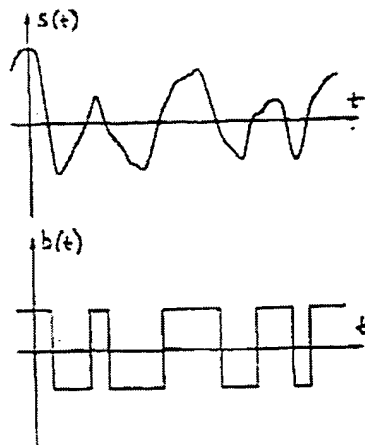


FIG. 2